

AMENDMENT(S) TO THE SPECIFICATION

Please replace the paragraph beginning at page 1, line 3, with the following rewritten paragraph:

The present invention relates to microstructure technologies and in particular to micromirror arrangements. In particular, the invention relates to a micromirror apparatus and micromirror arrays ~~as claimed in the precharacterizing clause of claim 1.~~

Please replace the paragraph beginning at page 2, line 12, with the following rewritten paragraph:

These arrangements are used in and applied to the fields of optical information processing, projection displays, video and graphics monitors, television and electrophotographic printing. In this case, the micromirror array is used to create a pixel-true image between an image wave with a large number of pixels and a target surface, for example a display. This image, which touches each mirror on a separate pixel basis, requires an extremely high degree of manufacturing accuracy for the production of micromirror arrays such as these. Furthermore, this type of use of such micromirror arrays virtually necessarily implies that the corresponding electronics circuit, which contains the logic for the "ON/OFF control" and the corresponding individual addressing logic for the respective mirror elements, ~~and thus components such as these~~ are extremely expensive, particularly as a result of the use of relatively expensive, high-purity silicon for the circuit mentioned above, while their production requires an extremely long development time and production effort, because of their small area.

Please replace the paragraph beginning at page 3, line 14, with the following rewritten paragraph:

One object of the present invention is thus to provide an apparatus ~~as claimed in the precharacterizing clause of claim 1~~ which, with or without the capability to actuate individual mirror elements, is suitable for being produced as a facade element for buildings, in comparison to the three-dimensional light modulators mentioned initially with a large area in the region of square decimeters or more, and which can be produced at low cost.

Please replace the paragraph beginning at page 3, line 23, with the following rewritten paragraph:

The subject matter ~~with the features of claim 1~~ of the apparatus achieves this object.

Please delete the paragraph on page 4, lines 1-3, in its entirety.

Please replace the paragraph beginning at page 5, line 11, with the following rewritten paragraph:

~~As is evident from claim 1, the~~ The materials for the base mounting surfaces on which a respective large number of individual bodies stand and to which the mirror elements are fitted may actually be ~~chosen by the choice~~, for example, of glass, Plexiglas, plastics, in particular polymers, such that at least the material value of the base mounting surface of a module has a very short edge length, for example of barely 25 cm. In this case, it is obvious that, when using apparatuses according to the invention such as these, particularly when they are used to fill areas in the window area, the base plate or base mounting sheet to which the individual mirror elements are fitted should be composed of a material which is transparent ~~[[for]]~~ to visible light. This is not absolutely essential when used in the facade itself, since in general it will not be necessary to see the masonry through the flat module according to the invention.

Please replace the paragraph beginning at page 9, line 15, with the following rewritten paragraph:

If the actuation mechanism for the mirror elements - as is preferred in this case - is intended to be based on electrostatic forces, then a first electrode is expediently associated with ~~[[a in]]~~ the mirror element, and a second electrode is associated with the base mounting surface. In this case, the second electrode may also optionally be in the form of a flat electrode, for a plurality or all of the mirror elements, on the base mounting surface, and may be firmly connected to it.

Please replace the paragraph beginning at page 9, line 24, with the following rewritten paragraph:

In this exemplary embodiment, an electrical supply line and contact between the electrodes and individual single bodies or groups of individual bodies can preferably be provided, which leads to one of the outer edges of the apparatus, in order that it can be passed on from there. In particular, the electrical supply lines are intended for computer-controlled addressing and actuation of the individual-body movement, and thus the movement of the mirror elements, via the electrode pairs as planar lines (integrated interconnects), ~~which~~ results in easy handling during the laying of the facade components according to the present invention, as well as simplified maintenance and reduced susceptibility to corrosion and other damaging environmental influences.

Please replace the paragraph beginning at page 12, line 18, with the following rewritten paragraph:

If, in a further preferred manner, a mirror element is mounted in a universally jointed manner by means of a further bridging element pair, which is provided within the pivoted area ~~according to the preceding claim~~, then this results in the full angular matching functionality. The angles ϑ and φ can be adjusted virtually independently of one another. The mirror itself can thus be readjusted very well independently of or as a function of the height of the sun throughout the day, in order to produce the correct mirror position for the various applications. This is dependent on a control program being implemented in the controller, which has the appropriate readjustment logic and appropriate driver programs for the overall system to be used. In this case, by way of example, the overall system may comprise a large number of 2048 individual modules, which are in each case subdivided into 4×4 , that is to say groups of 16, for in each case one building window or a window of a mobile system with an area of 1 m^2 , with the overall system containing a total of 128 windows. In this case, sun level sensors may, of course, also be used in order to provide control inputs for the readjustment logic. In this case, it should be clear that the readjustment aim may differ on an individual basis, depending on the use and the individual requirement.

Please replace the paragraph beginning at page 14, line 13, with the following rewritten paragraph:

Figure 3 shows a schematic ~~cross-section at~~ cross-sectional illustration of an individual body with a micromirror, in the way in which a large number of such mirrors are arranged repeatedly on an individual module 12 in Figure 1, according to a first exemplary embodiment of the present invention;

Please replace the paragraph beginning at page 21, line 17, with the following rewritten paragraph:

The contact between the bridging element 34, which is in the form of an electrode, and the associated part of the connecting network can preferably be made via the holding element 32 if the connecting network is arranged as here preferably in the lower area of Figure 3, for example shortly above the base mounting surface, and expediently being electrically isolated from it. If the bridging element 34 is composed of a metal or at least has a metal coating which at the same time has electrically highly conductive and good reflective characteristics, then the contact between the bridging elements and the connecting network can be made, for example, via a hole (via) through the holding element 32, or, alternatively, it can also run at the edge on it, as seen from top to bottom in Figure 3. The opposing electrode 38 is likewise composed of conductive material and, depending on the material which is used for the base mounting surface 30, may ~~possible~~ possibly also be isolated from it by means of an insulating layer, although this is not illustrated in Figure 3, in order to improve the clarity.

Please replace the paragraph beginning at page 23, line 1, with the following rewritten paragraph:

In this exemplary embodiment, the micromirror 36 pivots about an axis lying on the plane of the drawing in Figure 5, since the bridging elements 34 A and 34 B are manufactured as mechanical elements which have the capability to twist easily and are activated in the same way by electrodes, as in the previous exemplary embodiment. In this case, the micromirror 36 is expediently used as an electrode, and two opposing ~~electrons~~ electrodes 38 A and 38 B are provided and are arranged on the base mounting surface on opposite sides of the pivoting axis,

see Figure 6. In this exemplary embodiment as well, contact can be made between the micro-mirror 36 and the holding blocks 32 A and 32 B through vias. In addition, only one electrode pair may be provided.